



CONSPECTUS
of the theoretical examination in Pharmacology
for medical students (2020/2021)

I. GENERAL PHARMACOLOGY

1. Object and branches of pharmacology. Connection with other sciences. Historical review. Drug resources (crude drugs).
2. Drug - definition, origin, nomenclature. Drug form and drug product - definition. Drug preparations.
3. Stages and phases in the development of new drugs.
4. Transmembrane transport of drugs.
5. Drug absorption after various routes of administration.
6. Drugs distribution.
7. Drug metabolism.
8. Drug excretion.
9. Pharmacodynamics. Specific and non-specific type of action of the drugs.
10. Characteristics of the receptor type of action of the drugs. Types of receptors.
11. Drug properties and environmental factors affecting the kinetics and action of drugs.
12. Factors from the human body affecting the pharmacokinetics and pharmacodynamics of the drugs.
13. Effects from multiple drug administration.
14. Drugs interactions at pharmacokinetic level.
15. Drug interactions at pharmacodynamic level.
16. Pharmaceutical (*in vitro*) drug interactions. Drugs affecting clinical laboratory tests. Interactions of drugs with foods.

II. SPECIAL PHARMACOLOGY

17. Pharmacological modulation of the cholinergic neurotransmission – levels and mechanisms.
18. Cholinomimetics.
19. M-cholinolytics.
20. Neuromuscular blockers (Peripheral muscle relaxants).
21. Pharmacological modulation of the adrenergic neurotransmission – levels and mechanisms.
22. Adrenomimetics.

23. Alpha-adrenergic blocking agents. Agonists of the central presynaptic α_{2a} -adrenergic receptors.
24. Beta-adrenergic blocking agents.
25. Histamine antagonists.
26. Serotonin agonists and antiserotonergic drugs.
27. Local anaesthetics.
28. General anaesthetics.
29. Hypnotics. Sedative drugs with plant origin.
30. Antiepileptic drugs.
31. Antiparkinsonian drugs.
32. Neuroleptics.
33. Anxiolytics. Muscle relaxants with central action.
34. Antidepressants. Antimanic drugs.
35. Psychostimulants. Nootropic drugs.
36. Opioid analgesics.
37. Nonsteroidal anti-inflammatory drugs. Non-opioid analgesics.
38. Calcium channel blockers.
39. Drugs that affect the renin-angiotensin-aldosterone system.
40. Antihypertensive drugs.
41. Antiarrhythmic drugs.
42. Antianginal (antistenocardial) drugs.
43. Drugs for the treatment of heart failure.
44. Diuretics.
45. Peripheral vasodilators. Capillarotonic and venotonic drugs.
46. Antimigraine drugs.
47. Antidyslipidemic drugs.
48. Haematopoietic drugs.
49. Haemostatics (antihaemorrhagic) drugs.
50. Anticoagulants.
51. Fibrinolytics. Antiplatelet drugs.
52. Antiasthmatic drugs.
53. Antitussive drugs.
54. Antiulcer drugs.
55. Antiemetic drugs.
56. Hepatoprotectors. Drugs that affect bile secretion. Pancreatic enzyme preparations.
57. Laxative drugs.
58. Antidiarrheal drugs.
59. Vitamins – clinical applications.
60. Drugs that influence calcium and phosphorous exchange. Antigout drugs.
61. Hypothalamic and pituitary hormones – drugs and clinical application.
62. Thyreoactive drugs.
63. Insulins and insulin analogues.
64. Oral antidiabetic drugs.
65. Glucocorticoids and mineralcorticoids.
66. Female sex hormones – drugs and clinical application. Hormonal contraceptives.

67. Male sex hormones – drugs and clinical application. Anabolic drugs. Drugs for the treatment of erectile dysfunction.
68. Uteroactive drugs.
69. Antibiotics – classification; mechanisms, type and spectrum of action. Principles of the rational antibiotic therapy and prophylaxis.
70. Penicillins.
71. Cephalosporins.
72. Carbapenems and monobactams. Glycopeptides.
73. Aminoglycosides.
74. Tetracyclines.
75. Macrolides and ketolides.
76. Lincosamides. Amphenicols.
77. Sulfanoamides.
78. Quinolones.
79. Antituberculosis drugs. Antileprosy drugs.
80. Antimycotics.
81. Antiviral drugs.
82. Antiprotozoal drugs.
83. Antihelminthic drugs.
84. Antiseptics and disinfectants.
85. Antitumor chemotherapeutics.
86. Hormonal antitumor drugs. Target antitumor drugs.
87. Immunomodulators.

III. DRUG TOXICOLOGY

88. Side effects of drugs.
89. Organ toxic effects of drugs.
90. Fetal damage caused by drugs.
91. Principles of the management of acute poisoning with drugs.
92. Antidotes.
93. Acute intoxication and abuse of opioids. Principles of the treatment.
 94. Acute intoxication and abuse of benzodiazepines. Principles of the treatment.

CONSPECTUS
of the practical examination in pharmacology for medical students, third year,
Medical Faculty, Medical University of Sofia (2020/2021)

1. Prescription – parts of the prescription and types of prescription forms (orders).
2. Prescription – latin terms and abbreviations, metric and other units.
3. Pharmacopoeia. Types of doses.
4. Types of tablets. Prescribe: a.) Metamizole in tablets of 500 mg; b.) Glyceryl trinitrate in sublingual tablets of 0,5 mg; c.) Metronidazole in vaginal tablets of 500 mg.
5. Types of tablets. Prescribe: a.) Ciprofloxacin in film-coated tablets of 500 mg; b.) Acetylsalicylic acid (Acidum acetylsalicylicum) in effervescent tablets of 324 mg; c) Pantoprazole in enterosolvent tablets of 20 mg.
6. Types of tablets. Prescribe: a.) Verapamil in slow release tablets of 240 mg; b.) Dipyridamole in dragees of 25 mg.
7. Types of capsules. Prescribe: Doxycycline in capsules of 100 mg.
8. Types of powders. Prescribe as powder for oral application: a.) 50 g Sodium bicarbonate (Natrii hydrocarbonas); b) Caffeine (Coffeinum Natrii benzoas) 50 mg and Metamizole 500 mg (20 powders).
9. Types of powders. Prescribe: a) 20 magistral powders for oral application, containing 10 mg Codeini phosphas; b) Sulfathiazole in the form of officinal dermal powder in vials of 10 g.
10. Sachets and speciei: a) Prescribe Diosmectite 3 g in the form of powder in sachets; b) Prescribe species containing flowers of teil tree and chamomile and stalks of thyme 30 g each. Label: One tablespoon of the crude drug is covered by 300 ml boiling water. After the preparation cools down gargle is made three times daily.
11. Types of ointment. Prescribe: a) 3,5 g Tobramycin in the form of officinal eye ointment; b) 30 g magistral ointment, containing 2 g Acidum salicylicum and 4 g Acidum benzoicum, used for the treatment of mycoses (tinea pedis).
12. Creme and gel. Prescribe: a) Terbinafine 1% 15 g in the form of officinal cream in a tube; b) Diclofenac in the form of gel 5% 50 g in tube.
13. Suppositories. Prescribe one box of officinal suppositories: a) Paracetamol of 150 mg for children of age between six months and three years; b) Doloproct® (contains fluocortolone and lidocaine)
14. Transdermal therapeutic system. Prescribe on a yellow prescription form 10 plasters, releasing 50 mcg/h of Fentanyl.
15. Solutions. Prescribe: a) 4% 150 ml Natrii citras as a solution for oral application in both short and non-short form (Label: Take 1 soup spoon 3-4 times daily); b.) 5% 100 g alcoholic solution of Iodine (Solutio Iodi spirituosae) for treatment of the operating area.
16. Mixtures. Prescribe 1 vial of 140 ml Tussirol®. Label: Take 1 soup spoon 3 times daily.
17. Drops. Prescribe: a.) 20 g Tinctura Valerianae; b.) Solutio Xylometazoline 0,1% in vial of 10 ml.
18. Suspension. Prescribe one vial Amoxicillin in granules to prepare a suspension (250 mg/5 ml - 60 ml) for a child with 12 kg body weight (The daily dose is 50 mg/kg divided into 3 equal single doses).

19. Infusum and decoctum. Prescribe decoctum from the leaves of Bear grape (10 g/200 g).
20. Liquid drug forms for injections. Prescribe: a) 5 ampoules Pethidine (5% 2 ml); b) one vial Fentanyl 0,005% 10 ml. Calculate the dose of each drug present in 2 ml water solution; c) ten dry ampoules of 40 mg Methylprednisolone.
21. Air form formulations. Prescribe: a.) 1 vial Fluticasone as officinal nasal spray containing 120 single doses of 50 micrograms; b.) officinal spray Salbutamol which contains at least 200 single doses (0,1 mg/dose) for inhalation in the mouth.
22. Calculate Vd (volume of distribution) of Propranolol having in mind that after single oral dose of 30 mg its steady-state plasma concentration is 100 ng/ml.
23. Calculate the loading dose of Lidocaine, which should be applied as a stream venous infusion within a period of 2 min to a patient with ventricular tachycardia and body weight 70 kg, having in mind that the volume of distribution of the drug is 0,5 l/kg, and its steady-state plasma concentration is 2 mg/l.
24. Gentamicin has plasma half-life 2 hrs and dosage interval of 8 hrs in patients with normal kidney function. Calculate adjusted dosage interval in a patient with renal failure which leads to prolongation of the drug's plasma half-life to 15 hrs.
25. Prescribe muscarinic agonist with direct action as eye drops of 2% 10 ml (Atropine, Timolol, Pilocarpine).
26. Prescribe bulgarian preparation from the group of reversible blockers of cholinesterase in ampoules for subcutaneous injection (Carbachol, Galantamine, Atropine).
27. Prescribe muscarinic antagonist from natural origin in ampoules of 1 mg/1 ml (Pyridostigmine, Atropine, Butylscopolamine).
28. Prescribe three ampoules of neuromuscular blocker with depolarizing type of action as a solution of 10 mg/ml – 5 ml for application in a patient with body weight 70 kg. (Tubocurarine, Galantamine, Suxamethonium). The daily dose is 0,5 mg/kg. Explain the possible adverse reactions.
29. Prescribe one vial of dosed nasal spray 0,05% 15 ml containing alfa-adrenomimetic with duration of the activity 10-12 hours (Pilocarpine, Oxymetazoline, Salbutamol).
30. Prescribe adrenomimetic, activating alpha-, beta₁- and beta₂-adrenergic receptors (Noradrenaline, Isoprenaline, Adrenaline).
31. Prescribe in tablets of 2 mg an antiasthmatic drug, inducing least frequently heart tachiarrhythmias (Isoprenaline, Salbutamol, Metoprolol).
32. Prescribe selective beta₁-adrenergic blocking agent in tablets of 5 mg (Dobutamine, Bisoprolol, Propranolol).
33. Prescribe a highly-selective beta₁-adrenergic blocking agent in tablets of 5 mg which also releases nitrogen oxide (Nebivolol, Carvedilol, Atenolol).
34. Prescribe a drug effective in hypertensive crisis, which activates mainly central alpha₂-adrenergic receptors, in tablets of 0,15 mg (Reserpine, Nebivolol, Clonidine).
35. Prescribe an antihypertensive drug which is selective alpha₁-adrenergic antagonist in tablets of 1 mg (Midodrine, Clonidine, Prazosin).
36. Prescribe a selective alfa_{1A} blocker in capsules of 0,4 mg which is used in adult male patients with benign hyperplasia of the prostate gland (Tamsulosin, Prazosin, Propranolol).

37. Prescribe in ampoules of 1% 10 ml synthetic local anaesthetic, also used in ventricular tachycardia (Procaine, Amiodarone, Lidocaine).
38. Prescribe on a green prescription form benzodiazepine hypnotic in tablets of 5 mg (Phenobarbital, Zolpidem, Nitrazepam).
39. Prescribe drops for oral application, containing tinctures, prepared from Peppermint (*Mentha piperita*), Hawthorn (*Crataegus monogyna*), and Valerian (*Valeriana officinalis*), each in a dose of 5 g. Label: Take 20 drops 3 times daily.
40. Prescribe a butyrophenone neuroleptic in ampoules of 5 mg/1 ml, suitable for patients with excited psychotic state (Risperidone, Chlorpromazine, Haloperidol).
41. Prescribe on a green prescription form benzodiazepine anxiolytic with weak hypnotic effect in tablets of 10 mg (Midazolam, Medazepam, Hydroxyzine).
42. Prescribe in capsules of 20 mg antidepressant which inhibits selectively neuronal uptake of serotonin (Fluoxetine, Moclobemide, Imipramine).
43. Prescribe nootropic drug in film-tablets of 800 mg (Flunarizine, Fluoxetine, Piracetam).
44. Prescribe drug from hydantoin group of compounds with antiepileptic and antidysrhythmic activity in tablets of 100 mg (Phenobarbital, Ethosuximide, Phenytoin).
45. Prescribe a drug on a green prescription form for intramuscular application, used in grand mal in the form of ampoules of 10% 1 ml (Carbamazepine, Valproate sodium, Phenobarbital).
46. Prescribe benzodiazepine anxiolytic on green prescription form in ampoules, used in status epilepticus (Bromazepam, Diazepam, Flumazenil).
47. Prescribe an antiepileptic drug in capsules of 150 mg, also effective in neuropathic pain (Phenytoin, Pregabalin, Morphine).
48. Prescribe in tablets a combined antiparkinsonian drug, containing 200 mg levodopa, 50 mg carbidopa and 200 mg entacapone.
49. Prescribe in ampoules of 5% 2 ml an analgesic on yellow prescription form (Metamizole, Diclofenac, Pethidine).
50. Prescribe H₁-receptor blocker from third generation in the form of orodispersible tablets of 5 mg (Cetirizine, Desloratadine, Ranitidine).
51. Prescribe in tablets of 500 mg a non-narcotic analgesic from the aniline group, used for treatment of headache (Acetylsalicylic acid, Paracetamol, Celecoxib).
52. Prescribe a non-steroidal anti-inflammatory drug from the derivatives of propionic acid in the form of film-tablets of 400 mg (Ibuprofen, Nimesulide, Diclofenac).
53. Prescribe antihypertensive drug in tablets of 40 mg, which is a nonselective beta-adrenergic blocker with membrane stabilizing activity (Metoprolol, Atenolol, Propranolol).
54. Prescribe antihypertensive drug in tablets of 10 mg, blocking angiotensin-converting enzyme (Amlodipine, Enalapril, Losartan).
55. Prescribe combined antihypertensive drug, containing 20 mg of enalapril and 12,5 mg of hydrochlorothiazide.
56. Prescribe calcium antagonist, improving brain circulation in tablets of 30 mg (Naftidrofuryl, Alprostadil, Nimodipine).
57. Prescribe in film-coated tablets of 50 mg a selective agonist of 5-HT_{1D}-receptors used for treatment of migraine (Ergotamine, Sodium Valproate, Sumatriptan).

58. Prescribe in tablets of 120 mg antiarrhythmic drug from the class of calcium antagonists (Adenosine, Ivabradine, Verapamil).
59. Prescribe in vials a coronary dilator for the treatment of anginal attack and hypertensive crisis in the form of dosed oromucosal spray containing 300 single doses of 1.25 micrograms (Nifedipine, Isosorbide dinitrate, Enalapril).
60. Prescribe 5 ampoules containing solution of cardiac glycoside 0,25 mg/ml for intravenous application (Dobutamine, Digoxin, Methyldigoxin).
61. Prescribe in tablets of 100 mg a thiazide type diuretic with long lasting effect (Hydrochlorothiazide, Torasemide, Chlorthalidone).
62. Prescribe 5 ampoules in the form of solution 20 mg/2ml loop diuretic (Mannitol, Spironolactone, Furosemide).
63. Prescribe in capsules of 300 mg a venotonic drug which is semisynthetic derivative of rutin (Lioton® 1000, Detralex®, Troxevasin®).
64. Prescribe in slow-release film-coated tablets of 325 mg a drug, containing iron sulfate (Ferro-Gradumet®, Epoetin alfa, Ferinject®).
65. Prescribe vitamin for treatment of megaloblastic anaemia in ampoules of 1000 micrograms (Ferrous sulfate, Cyanocobalamin, Phytomenadione).
66. Prescribe antianaemic drug as solution in vials of 3000 UI/0,3 ml for a patient on haemodialysis with chronic renal failure (Cyanocobalamin, Epoetin alfa, Chloramphenicol).
67. Prescribe colony-stimulating factor for granulocytes for subcutaneous application in prefilled disposable syringes of 300 mcg/0,5 ml (Chloramphenicol, Filgrastim, Cyclophosphamide).
68. Prescribe drug for local treatment with haemostatic and antiseptic activity (Gelaspon®, Solutio Hydrogenium peroxydi diluta, Fraxiparine®).
69. Prescribe anticoagulant in tablets of 4 mg (Heparin sodium, Acenocoumarol, Phytomenadione).
70. Prescribe 10 prefilled disposable syringes of 9500 IU/0,6 ml for subcutaneous application which contain low molecular weight derivative of heparin (Rivaroxaban, Nadroparin, Alteplase).
71. Prescribe in tablets an antiplatelet drug, which inhibits synthesis of thromboxane A₂ (Dabigatran, Acetylsalicylic acid, Clopidogrel).
72. Prescribe electrolyte solution for intravenous infusion in vials of 500 ml (Gelofusin®, Intralipid®, Solutio Ringeri).
73. Prescribe in tablets of 1 000 000 UI acid stable penicillin for a patient with tonsillitis (Benzylpenicillin, Phenoxymethylpenicillin, Azithromycin).
74. Prescribe 20 dry vials of 1 000 000 UI containing antibiotic for parenteral application for a patient with acute rheumatic attack (Aciclovir, Benzylpenicillin, Moxifloxacin).
75. Prescribe a wide-spectrum aminopenicillin with high intestinal absorption for a baby with body weight 9 kg (Ampicillin, Amoxicillin, Co-trimoxazole).
76. Prescribe in film-coated tablets of 1000 mg amoxicillin protected with clavulanic acid for a patient with mixed urinary infection (Augmentin®, Tazocin®, Sulperazon™).
77. Prescribe in vials of 1 g cephalosporin from third generation for i.m. injection and considerable urinary and biliary excretion and long plasma half-life (Cefepime, Imipenem, Ceftriaxone). For i.m. application 1 g from the substance is dissolved in 4 ml 1% solution of lidocaine.

78. Prescribe in ampoules of 80 mg/2 ml aminoglycoside antibiotic for treatment of Gram-negative urinary infection (Spiramycin, Gentamicin, Ciprofloxacin).
79. Prescribe antibiotic without harmful effects for a pregnant woman with infection of upper respiratory tract (Doxycycline, Amikacin, Amoxicillin).
80. Prescribe in film-coated tablets of 500 mg a macrolide antibiotic, used in the combined therapy of peptic ulcer (Phenoxymethylpenicillin, Cefalexin, Clarithromycin).
81. Prescribe combined preparation, containing Sulphamethoxazole and Trimethoprim (Tienam[®], Co-Trimoxazole, Rodogyl[®]).
82. Prescribe in film-coated tablets of 500 mg fluoroquinolone for treatment of adult patient with urinary infection (Augmentin, Ciprofloxacin, Azithromycin).
83. Prescribe an antitubercular drug in tablets of 100 mg which is hydrazide derivative of isonicotinic acid (Isoniazid, Ethambutol, Rifampicin).
84. Prescribe in capsules of 300 mg an antituberculosis antibiotic which is also effective in infections caused by Methycillin-resistant Staphylococcus aureus (Pyrazinamide, Rifampicin, Ethambutol).
85. Prescribe in vials of 0,5% 100 ml antimicrobial agent, administered intravenously for treatment of anaerobic infection (Metronidazole, Ketoconazole, Aztreonam).
86. Prescribe in tablets of 250 mg drug with haemathoshisotropic and immunosuppressive effect for prophylaxis of all types of malaria (Zidovudine, Doxycycline, Chloroquine).
87. Prescribe a nucleoside analogue in the form of 250 mg powder used to prepare infusion solution, indicated for treatment of encephalitis, caused by herpes simplex virus (Aciclovir, Indinavir, Oseltamivir).
88. Prescribe antiretroviral drug for treatment of AIDS in capsules of 100 mg (Voriconazole, Zidovudine, Rimantadine).
89. Prescribe in tablets of 500 000 UI an antimycotic antibiotic for oral treatment of enteral candidosis (Nystatin, Ketoconazole, Clotrimazole).
90. Prescribe an antitrichomonal drug in tablets of 500 mg which is applied once orally (Tinidazole, Fluconazole, Miconazole).
91. Prescribe in tablets of 100 mg benzimidazole derivative for single application for children above 2 years of age and adults with enterobiosis. Label: Take 1 tablet as a single dose. In two weeks the dose is repeated (Mebendazole, Metronidazole, Praziquantel).
92. Prescribe combined drug in pastilles, containing 250 mcg dequaline and 30 mg ascorbic acid, for disinfection of oral mucosa and throat (Efisol[®], Trachisan[®], Chlorhexidine).
93. Prescribe antitussive drug in tablets of 100 mg, reducing receptor sensitivity in bronchial mucose (Butamirate, Codeine, Prenoxidiazine).
94. Prescribe mucolytic drug in effervescent tablets of 200 mg (Acetylcysteine, Prenoxdiazine, Theophylline).
95. Prescribe antacid in chewing tablets of 500 mg (Ranitidine, Almagel[®], Hydrotalcite).
96. Prescribe one vial of 170 ml antacid, containing balanced gel of Aluminium and Magnesium hydroxide and benzocaine for oral application.
97. Prescribe in capsules of 20 mg antisecretory agent from the class of proton pump inhibitors, used in peptic ulcer (Pirenzepine, Famotidine, Omeprazole).

98. Prescribe in tablets of 8 mg an antiemetic drug, which is a selective antagonist of 5-HT₃-receptors (Domperidone, Metoclopramide, Ondansetron).
99. Prescribe in film-coated tablets of 5 mg synthetic purgative agent, acting mainly on the large intestine with slow developing effect (Castor oil, Magnesium sulfate, Bisacodyl).
100. Prescribe in capsules of 2 mg antidiarrheal drug, which stimulates peripheral opioid receptors (Diosmectite, Bisacodyl, Loperamide).
101. Prescribe in capsules of 110 mg hepatoprotective drug, containing bioflavonoids (Isoniazid, Silymarin, Essentiale® forte N).
102. Prescribe in tablets of 400 mg drug with selective spasmolytic activity on extrahepatic bile ducts (Drotaverine, Hymecromone, Morphine).
103. Prescribe in film-coated tablets drug, containing 10 000 lipase units. (Mezym® forte, Hymecromone, Famotidine).
104. Prescribe vitamin in vials of 200 000 UI/10ml for prophylaxis of rickets (Retinol, Cholecalciferol, Tocoferol).
105. Prescribe inhibitor of xanthine oxidase in tablets of 100 mg (Allopurinol, Colchicine, Hydrochlorothiazide).
106. Prescribe drug for treatment of myxoedema in tablets of 50 micrograms (Propylthiouracil, Levothyroxine, Thiamazole).
107. Prescribe synthetic antithyroid drug in tablets of 5 mg (Betamethasone, Triiodothyronine, Thiamazole).
108. Prescribe insulin with rapid onset, also suitable for treatment of hyperglycemic coma.
109. Prescribe a biguanide antidiabetic drug in film-coated tablets of 1000 mg (Metformin, Glibenclamide, Linagliptin).
110. Prescribe fluorine-containing prednisolone drug in tablets of 0,5 mg (Hydrocortisone, Prednisone, Dexamethasone).
111. Prescribe in dry ampoules glucocorticoid drug for treatment of anaphylactic shock (Adrenaline, Prednisolone, Methylprednisolone).
112. Prescribe dermal ointment, containing fluocinolone and neomycin (Flucinar®, Miconazole, Flucinar N®).
113. Prescribe contraceptive drug for oral application (Esracomb®, Logest®, Sildenafil).
114. Prescribe hormonal uterokinetic drug in ampoules of 5 UI/1 ml (Oxytocin, Salbutamol, Methylergobrevine).
115. Prescribe 5 ampoules containing 10 micrograms/2 ml drug suitable for acute tocolysis (Estradiol, Methylergobrevine, Hexoprenaline).
116. Prescribe in tablets of 50 mg alkylating antineoplastic agent, used in lung cancer (Cyclophosphamide, Methotrexate, Doxorubicin).
117. Prescribe ten ampoules with solution 10 mg/1 ml for intravenous application which contain antidote for the coumarin anticoagulants (Heparin sodium, Phytomenadione, Ticlopidine).
118. Prescribe a pure antagonist of morphine in ampoules of 0,4 mg/1 ml (Deferoxamine, Naloxone, Methadone).
119. Prescribe in ampoules 1% 5 ml drug inactivating heparin, administered intravenously (Penicillamine, Obidoxime, Protamine sulfate).

120. Prescribe a competitive antagonist of the benzodiazepine anxiolytics in the form of solution 0,5 mg/5ml in ampoules (Naltrexone, Alprazolam, Flumazenil).

RECOMMENDED LITERATURE

1. Basic and Clinical Pharmacology with Toxicology. Boyadjieva, N. (editor). ARSO, Sofia, 2015.
2. Pharmacology and pharmacotherapy at a glance. Varadinova, M., Boyadjieva, N. ARSO, Sofia, 2015.
3. Brenner and Steven's Pharmacology. 5th Edition. Brenner, G.M, Stevens, CW. Elsevier, 2018.
4. Pharmacology Lippincott Illustrated Reviews. 7th Edition. Karen Whalen (editor). Wolters Kluwer, Philadelphia, 2018.
5. Basic & Clinical Pharmacology. 14th Edition. Katzung BG (editor). McGraw-Hill Education, New York, 2018.
6. Pharmacology. 9th Edition. Rang, HP, Ritter, JM, Flower, RJ, Henderson, G (editors). Elsevier, 2019.
7. Essentials of Medical Pharmacology. 7th Edition. Tripathi KD. Jaypee Brothers, New Delhi, 2013.
8. www.medpharm-sofia.eu

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